

Possible Opportunities for BTeV Software

Paterno, Kowalkowski

Why are we here?

- Inform BTeV about local software development directions, related to
 - CMS infrastructure software
 - LCG (common LHC infrastructure software)
- Explore possible benefits to BTeV

Definition

- **Infrastructure software**
 - The software libraries and tools upon which your application software is built
 - Examples:
 - Persistency mechanism
 - Histogram recording facilities

Questions to Consider

- Can BTeV benefit from Fermilab involvement in local projects?
- Can BTeV leverage this effort to share manpower in creating tools that satisfy BTeV requirements?
- What is the overlap between BTeV's needs and these projects?

Possible Local Activities

- Database access
 - FroNtier + additions
- Scientific libraries (with LCG)
 - Random
 - Minimization
- Re-engineering of CMS core infrastructure
 - ┌ Event processing application framework
 - ┌ Event-data model
 - ┌ Parameter set handling

Involvement

- What does it mean?
 - Actively participating in the design and production of these things or selective parts of these things
 - Sharing expertise and manpower where appropriate and to the largest extent appropriate
 - Participation in production of infrastructure software, not physics applications
- What does it *not* mean?

Where do needs not overlap?

- Things independent of software infrastructure
 - Build system
 - Reconstruction algorithms
 - Analysis techniques
- Database
 - Vendors
 - Storage techniques
 - Organization

Possible Advantages

- Shared development effort
- Larger community of users
 - Better tested
 - more thoroughly debugged
- Shared maintenance

Development Timing issues

- Any project will be done in an iterative fashion, in small steps, following a “road map”
- Re-engineering proposal & redesign – if undertaken by CMS, approximately 5 months
- Random – over the next 6 months
- Minimization – over the next 6 months
- Parameter set handling – over the next year

Questions to ponder

- Is there an overlap in software needs?
- If so, on which items or areas?
- What are your concerns about getting involved in something like this?

For more information, visit our web site at

http://www-cdserver.fnal.gov/cd_public/cpd/aps/mfp/web/btev_sw/index.htm